

REMARKS

Claims 1 and 22 have been amended. New claim 26 has been added. Claims 1-5 and 7-26 are pending. Inventorship is not changed by these amendments.

With respect to all amendments and cancelled claims, Applicants have not dedicated or abandoned any unclaimed subject matter and moreover have not acquiesced to any rejections and/or objections made by the Patent Office. Applicants reserve the right to pursue prosecution of any presently excluded claim embodiments in future continuation and/or divisional applications.

Response to Rejection under 35 USC § 101

Applicants respectfully thank the Examiner for withdrawing the rejections under 35 USC § 101.

Response to Rejection under 35 USC § 112, ¶ 2

The Examiner has rejected the claims as indefinite on multiple grounds.

Claims 1-5 and 7-13 and 22-25

Claims 1-5 and 7-13 and 22-25 are rejected under 35 U.S.C. §112, second paragraph, as being incomplete for omitting essential structural cooperative relationship of elements. Independent claims 1 and 22 have been amended to clarify the relationship between the coordinates of the target protein and the forcefield calculation.

Applicants note that the amendment is made only for clarity, and does not narrow the scope of the invention. By this amendment, Applicants do not give up any previously claimed subject matter.

In light of the foregoing amendment, this ground for rejection should be withdrawn.

Claims 1, 14, 15, 17 and 22

Claims 1, 14, 15, 17 and 22 are further rejected under 35 U.S.C. §112, second paragraph on the basis that the combining a plurality of amino acids from the probability distribution step was unclear if the step was intended to result in an *in silico* embodiment or the "real world" synthesis of actual protein sequences.

For purposes of Examination, the Examiner construes the "combining" step to include both *in silico* and "real-world" synthesis. Applicants agree that the "combining" step includes both *in silico* and "real-world" synthesis. The fact that the Examiner construed the claim limitation this way indicates that the claim term is neither vague nor indefinite. The Applicants respectfully draw the Examiner's attention to M.P.E.P. §2171.02:

If the language of the claim is such that a person of ordinary skill in the art could not interpret the metes and bounds of the claim so as to understand how to avoid infringement, a rejection of the claim under 35 U.S.C. 112, second paragraph, would be appropriate. See *Morton Int'l, Inc. v. Cardinal Chem. Co.*, 5 F.3d 1464, 1470, 28 USPQ2d 1190, 1195 (Fed. Cir. 1993). However, if the language used by applicant satisfies the statutory requirements of 35 U.S.C. 112, second paragraph, but the examiner merely wants the applicant to improve the clarity or precision of the

language used, the claim must not be rejected under 35 U.S.C. 112, second paragraph, rather, the examiner should suggest improved language to the applicant.

In this case, the Examiner has correctly interpreted the language of the claim, and thus the Applicants submit the claims meet the requirements of 35 U.S.C. §112, second paragraph.

In addition, Applicants have added new claim 26 to specifically require a calculation (e.g. *in silico*) in a computer as part of the combining step. Applicants note that the "real world" synthesis of actual sequences is within the scope of claim 2, wherein the combining step comprises "PCR" and "producing secondary variant sequences."

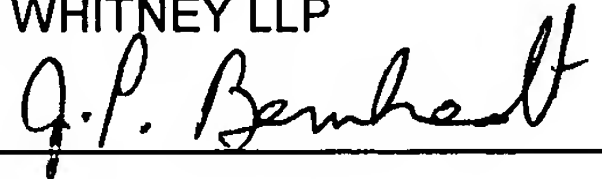
Conclusion

The Applicants submit that in light of the above amendments and response, the claims are now in condition for allowance and an early notification of such is respectfully solicited. The Examiner is invited to contact the undersigned at (415) 781-1989 if any issues may be resolved in that manner.

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